Experts in Vitamin Analysis

Scope of matrices















 $LoO = 50 \mu g/100g$

 $LoQ = 0.5 \mu g/100g$



>3.000

samples/ month

dedicated LC-MS/MS

dedicated

scientists

Rush TAT

capacity of

40 E,D,K,A samples/ day

team of

people

 expertise for wide variety of matrices gathered during BfR Meal study (first German total diet study)

- active participant of German vitamin working group
- LC-MS/MS method for water soluble vitamins (capacity 40 samples/day)
- automated sample preparation for fatty soluble vitamins (mod. DIN EN 12822)
 - B1 (thiamine)
 - B2(riboflavin)
 - B3 (nicotinic acid, nicotinamide)
 - B5 (pantothenic acid)
 - B6 including pyridoxine, pyridoxal & pyridoxamine
 - B12 (cobalamin) also for oil capsules
 - Biotin (B7 or B8)

B9 including folic acid, tetrahydrofolate, 5-methyltetrahydrofolate and 5-formyltetrahydrofolate $LoQ = 1 \mu g/100g$

Vitamin C LoQ = 1 mg/100g

LoQ diverse: Fatty soluble vitamins E (0,1 mg/100g), D3 (0,5 μg/100g), K1 (1 μg/100g), A (10 μg/100g) by HPLC (MS/MS and FLD)





Vitamin Analysis Scope



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Matrix/Vitamin	A Retinol	B1 Thiamine	B2 Riboflavin	B3 Niacin	B5 Pantothenic acid	B6 Pyridoxine	B7/B8 Biotin	B9 Folate/Folic acid	B12 Cyanocobal	C Ascorbic acid	D3 Cholecalcifer	E Alfa-tocopherol	E acetate	K1 Phylloquinone
milk	V	V	√	√	√	V	1	√	√	V	√	√	on request	√
dairy products	√	√	√	√	√	√	v	√	√	√	√	√	on request	√
milk powder	V	√	√	√	√	√	V	√	√	V	√	√	on request	√
baby food	V	√	√	√	√	√	V	√	√	√	√	√	on request	√
infant formula (milk powde	V	√	√	√	√	√	V	√	√	√	√	√	on request	√
bakery	on request	√	√	on request	on request	V	on request	on request	on request	on request	on request	√	on request	on request
ice creame	on request	on request	√	on request	on request	√	on request	on request	√	on request	on request	on request	on request	on request
oils	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	√	on request	√
soy product	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request
fresh vegetable	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	√	on request	on request
fruits	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	√	on request	on request
freeze fruits	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	√	on request	on request
fruit gums	on request	V	√	√	√	√	V	√	√	√	on request	on request	V	on request
fruit juice	on request	on request	√	on request	on request	√	on request	on request	on request		on request	on request	√	on request
ready to eat	on request	on request	on request	on request	on request	on request	on request	on request	on request	√	on request	on request	on request	on request
supplements	on request	on request	on request	on request	on request	on request	on request	on request	on request		on request	on request	on request	on request
pet food	V	V	on request	on request	on request	on request		on request	on request	√	√	√	on request	on request
feed	√	√		on request	on request	on request	V	on request	on request	√	√	√	on request	on request
vitamin mix	√	V	√	√	√	√	V	√	√	V	V	√	V	√
cereals	on request	√	√	√	√	√	on request	√	√	on request	√	on request	on request	on request
	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request	on request

